CHAPTER II: MULTIPLE-ISSUE ITEMS
OSS and COLLOCATION

A. OPERATIONS SUPPORT SYSTEMS (OSS)

Summary

Of all the issues before the Commission in the section 271 proceeding, the fitness of Pacific's OSS offering generated the most comment. Most commentators strongly assert that Pacific has failed to meet it obligation to provide non-discriminatory access to its OSS. Pacific generally responds that it has met the non-discriminatory standard contained in section 271 of FTA96. Further, Pacific appears to have certain interpretations of the FTA96 and FCC orders that have greatly shaped its current offering of OSS. Specifically, Pacific apparently believes that manual interfaces can provide equivalent access to a mechanized process, that access to its proprietary systems meets the requirements of the FTA96, and that the promise of future improvements is acceptable evidence of adequate performance.

Staff's review of all parties' comments led it to determine that Pacific has not provided non-discriminatory access to its OSS. Staff is particularly concerned that its interpretations of the FCC orders denying prior section 271 applications differ substantially from Pacific's. Despite Pacific's significant investment in making OSS available to competitors, staff is of the opinion that Pacific's OSS offering needs fundamental changes to bring it into compliance with section 271 of FTA96.

Many of the recommended changes stem from differing interpretations of FCC orders. As outlined above, staff believes that:

- Pacific's OSS offerings must offer the same level of mechanization as its retail offering;
- Pacific cannot base compliance solely on its proprietary systems. Pacific must offer all functionalities through non-proprietary interfaces;
- Pacific's promises of future system improvements cannot be used in review of its application.

Staff looks forward to the opportunity of working with Pacific and other parties to develop solutions and implementation plans for the issues discussed below.

Recommendation

Staff recommends that Pacific and other parties use the collaborative process to develop fixes to Pacific's OSS that will enable Pacific's offering to comply with Sections 251, 252 and 271. To further the discussion in the collaborative process, staff has provided several recommendations for discussion topics and basic system improvements that should be addressed as a starting point. Staff appreciates that Pacific has expended considerable effort in developing its current OSS interfaces and hopes that the collaborative process will build upon this prior work.

FCC Rulings in Prior 271 Filings

In each of its 271 orders, the FCC discusses and clarifies what it means to provide nondiscriminatory access to OSS. In its Ameritech/Michigan 271 order, the FCC developed a framework for analyzing access to a BOC's OSS, established a broad definition for nondiscriminatory access, determined what types of evidence could be used to demonstrate nondiscriminatory access, and lastly, whether the BOC has provided access consistent with Sections 251, 252 and 271.

Framework for Analysis

The FCC determined that an examination of a BOC's OSS performance was integral to its determination of whether a BOC is "providing" all of the items contained in the competitive checklist.[5] To determine OSS performance, the FCC uses a two-part inquiry. First, the Commission must determine whether the BOC has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions available to them. Second, the Commission must determine whether the OSS functions that the BOC has deployed are operationally ready, as a practical matter.[6]

Based on the facts before it in Ameritech's application, the FCC determined that a BOC must comply with the following requirements in order to satisfy the duty to provide nondiscriminatory access to operational support systems by competing carriers:

1. allow a competing carrier access to the processing of information between the interface and the legacy systems to perform a specific function in substantially the same time and manner as the ILEC performs that function for itself;[7]

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[5] FCC, In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Michigan, ¶132

[6] ¶136.

[7] ¶135

2. deploy the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions;[8]
3. develop sufficient electronic and manual interfaces to allow competing carriers to access all of the necessary functions;[9]
4. provide equivalent access to the competing carrier for the necessary functions;
5. provide equivalent access in terms of quality, accuracy and timeliness for retail services;[10]
6. demonstrate that the access it provides offers an efficient competitor a meaningful opportunity to compete for services with no retail analogue;[11]
7. adequately assist competing carriers to understand how to implement and use all of the OSS functions available to them;[12]
8. ensure that its OSS are designed to accommodate both current demand and projected demand of competing carriers for access to OSS functions.[13]

Evidence of Nondiscriminatory Access

A BOC must present evidence that the above OSS functions are operationally ready, as a practical matter, to meet the nondiscriminatory access standard. The FCC finds that performance standards that have been adopted by a state commission are more persuasive evidence than standards unilaterally adopted by the BOC.[14] Commercial evidence is the most probative type of empirical evidence to prove operational readiness.[15] Also, the information provided by the BOC must be verifiable. Additionally, a BOC must possess operational evidence to demonstrate operational readiness. This evidence must show that its OSS functions provided to competing carriers are actually handling the current demand and will be able to handle reasonable foreseeable demand volumes.[16]

The BOC must demonstrate "that it has developed sufficient electronic and manual interfaces to allow competing carriers to access all of the necessary OSS functions." To demonstrate it has sufficient interfaces, the BOC must prove the following:

- The quality of the service the competitor will receive must be at parity with the BOC.

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[8] ¶136
[9] ¶137
[10] ¶139
[11] ¶141
[12] ¶131
[13] ¶137
[14] ¶141
[15] ¶161
[16] ¶161

- The time required to provide resold services must be substantially the same as the amount of time for a BOC to provide analogous retail service to itself or a customer.[17]

Double-billing is compelling evidence that a BOC's OSS for ordering and provisioning for resale services is not operationally ready, and that, therefore, the BOC is not providing nondiscriminatory access to OSS functions. [18]

The BOC must demonstrate, at a minimum, that both individual and combinations of network elements can be ordered, provisioned, and billed in an efficient, accurate, and timely manner, and that its operations support systems supporting such functions are designed to accommodate both current demand and projected future demand of competing carriers.[19] A BOC must be able to process adequately an increased volume of orders in a timely fashion.[20] The amount of reliance on manual processing is important. Competitors should not be subject to manual processing more often than the BOC because this affects the timeliness of orders.[21]

The BOC must provide competing carriers with all of the information necessary to format and process their electronic requests so that these requests flow through the systems quickly and efficiently.[22] The BOC must respond to requests and have the capacity to meet the demands of competitors when requested.[23]

The FCC has devoted a considerable portion of its orders on section 271 applications discussing access for non-retail functions (e.g., unbundled loops, switching and transport). The FCC finds that nondiscriminatory access in this context exists when the BOC demonstrates that the access it provides to competing carriers <u>provides the competitor a meaningful opportunity to compete</u>.[24]

The FCC provided no definite criteria on proving when 'a meaningful opportunity to compete' exists. However, the FCC said, as indicated above, that specific performance standards adopted by a state commission would be more persuasive evidence of reasonableness than a standard unilaterally adopted by a BOC. As an example of evidence that competitors have a meaningful opportunity to compete, the FCC notes that customers served by UNEs may provide sufficient data to develop an appropriate measurement of equivalent access.[25]

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[17] ¶¶167, 171
[18] ¶203
[19] ¶161
[20] ¶191
[21] ¶¶ 163,180,196,199.
[22] ¶131
[23] ¶198, 199
[24] ¶141
[25] ¶141

Summary Competitors' Concerns

Competitors concerns were broadly grouped into ten categories:

1. Pre-Ordering Interfaces
2. Ordering
3. Maintenance and Repair
4. Billing
5. Change Management
6. Anti-Competitive Behavior
7. Local Service Center
8. OSS Appendix—Access to OSS Interfaces
9. Training
10. Testing of Interfaces

These concerns and Pacific's responses are analyzed by staff in subsequent sections in this chapter.

1. Pre-Ordering Interfaces

Competitors' Concerns

In their comments CLECs note several significant shortcomings with Pacific's pre-ordering OSS interfaces. Key among these is CLECs' inability to integrate information from the pre-ordering process into an order.[26] Without the ability to integrate pre-ordering information, CLECs are forced to enter the same information twice, greatly increasing the chance for errors. Brooks suggests that with proper integration CLEC ordering errors would greatly diminish.[27]

Another substantial shortcoming that competitors cite is their inability to electronically access customer service records (CSRs) via Pacific's pre-ordering interfaces. Competitors claim that Pacific's retail representatives have electronic access, and that this therefore is not an equivalent offering. CLECs state that they need the CSRs to ensure that customers switching carriers are aware of all their current services and options. CSRs also help in determining customer premise equipment compatibility.

In addition to CSRs, TCG believes Pacific should be required to offer CLECs an electronic ability to inquire about and reserve due dates; to schedule appointments; to reserve facilities; to view pre-qualified loops, and; to retrieve Customer Premise

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[26] Sprint p.10, MCI p. 203, Nextlink/ICG, p. 26

[27] Brooks notes that Pacific identifies in its Appendix A response five categories of errors committed by CLECs that are the major source of errors for all orders placed by CLECs. Three of those categories are directly related to obtaining pre-order information (correct address, telephone numbers and correct circuit identification). (4/30 filing, p. 8)

Equipment configuration/compatibility information. Nextlink/ICG notes that Pacific's retail representatives have access to the APTOS legacy system (Automated Pricing Terminal Operations and Service Database) in order to place inquiries for facility availability. They also state that other Pacific personnel have the ability to access the Loop Facility Assignment Control System (LFACS), a database that contains information about facilities. Both TCG and Nextlink/ICG believe it is not consistent with either FTA96 or the FCC's rules that CLECs are prevented from having access to this information.

MCI and Sprint assert that Pacific does not offer the same form of address validation to CLECs as its own retail representatives have. The CLECs believe that unlike the form of validation offered to its own representatives, CLECs are only offered the option of validating that a service address is in a range of addresses that Pacific serves. The individual address is not validated against a current customer/facility base.

Pacific's Response

In Pacific's May 20, 1998, response to competitors' concerns, Affiant Viveros states that Pacific introduced several new interfaces that allow CLECs to integrate pre-ordering information either by designing their own systems or by allowing use of Pacific's existing legacy system. Pacific notes that the Datagate interface allows CLECs to develop their own Electronic Data Interface (EDI) ordering interface that would allow for pre-order integration. CLECs also can use Windows based technology (e.g., third party software or cut-and-paste options) to integrate orders placed with Verigate and LEX (Local Service Request Exchange). Lastly, Pacific notes that if CLECs use Pacific's legacy systems either Starwriter or SORD (Service Order Retrieval and Distribution), some level of pre-ordering integration is available. Pacific believes these interfaces provide the CLECs with sufficient options for a CLEC to integrate pre-ordering information.

In the same filing, Pacific also indicates that electronic access to CSRs is now available through Verigate and Datagate pre-ordering interfaces. Pacific does not think it is obligated to provide electronic access to other information concerning facility availability or to allow CLECs to view information on pre-qualified loops. This is because Pacific's own representatives do not have electronic access. Pacific states that "due date availability" and "dispatch required" functions are made available equally to Pacific's retail representatives and to CLECs through Datagate and Verigate. Additionally, due dates are often negotiated for large or complex orders. Pacific claims that it does provide access to customer premise compatibility by providing switch type in the pre-ordering information available to CLECs. Pacific notes that effective June 1998 these same capabilities will apply to Plain Old Telephone Service (POTS)-like Unbundled Network Element (UNE) loop and port combinations where Pacific combines the UNEs for the CLEC.

With respect to address validation, Pacific asserts that its service representatives access the same database and receive the same type of validation. Pacific insists that it does not validate specific service addresses for its own retail operations.

Staff Analysis

Staff agrees with competitors that Pacific has not provided sufficient ability to integrate pre-ordering and ordering interfaces. We believe that parties should explore what level of pre-ordering integration is equivalent to that experienced by Pacific's own retail representatives. As a minimum, staff recommends that parties consider developing one set of GUI-based interfaces (Graphical User Interface) that allow CLECs to order resold services and a GUI-based integrated interface for UNEs, either in the same interface or a separate offering,. It would be most helpful if Pacific came to the collaborative process with time and cost estimates for fully integrating Verigate to LEX. Parties could then discuss and agree upon what level of information is necessary to allow CLECs to readily build an integrated pre-order/ordering interface that permits machine-to-machine interaction. This may be achieved by improving upon the documentation for Datagate and EDI.

Although staff understands that the FTA96 and FCC's orders have established parity as a requirement for entry, staff is also aware that interfaces may exist that offer better than parity performance with a relatively small amount of incremental effort. Accordingly, staff hopes that Pacific will be willing to consider in the workshop all potential interface solutions: those that offer parity performance as well as those that offer better than parity performance, in the interest of determining the optimal interfaces.

In discussing pre-ordering integration, Pacific should be prepared to discuss in detail what system work is necessary to provide electronic access to CSRs and what level of access its own retail representatives currently have. Staff would like to explore fully the level of electronic access Pacific's retail representatives have to inquire about and reserve due dates, to schedule appointments, to reserve facilities and to retrieve CPE configuration and compatibility information. At the collaborative meetings, staff would like Pacific to explain which employees have access to APTOS and LFACS, and what the primary purpose is for these databases. Staff wishes to explore permitting CLECs access to those databases, if appropriate.

Staff believes competitors' concerns regarding address validation may best be handled through improvements to documentation on the use of pre-ordering address validation functions. This issue should also be explored in the collaborative meetings.

2. Ordering

Background

Pacific provides several ordering interfaces for both resale and UNEs. Starwriter, SORD, LEX, RMI (Resale Mechanized Interface) and EDI can be used by CLECs to order resold services. Starwriter is used by Pacific's own retail representatives for ordering simple residential services, and SORD is used for simple and complex business and complex residence orders. LEX provides CLECs with a graphical, user friendly ordering interface while RMI and EDI are designed for a higher volume environment where the CLEC designs its own ordering interface. For UNEs, CLECs can choose among four interfaces. The first interface introduced was Customers Enhanced System for Access Requests (CESAR), adapted from its prior use as an ordering interface for interexchange carriers. LEX is a new interface that was originally designed by Southwestern Bell Corporation and features a graphical user interface. LEX was introduced in March 1998, but carriers are only recently starting to use and/or test LEX capabilities. EDI is a machine-to-machine interface that requires substantial investment by a CLEC. Currently, no CLEC has used EDI for ordering UNEs. Finally, CLECs may use SORD to order UNEs, but it is still unclear which UNEs may be ordered through SORD. SORD became available in May 1998.

Competitors' Concerns

Many competitors expressed concern about the proprietary nature of many of Pacific's interfaces (except EDI and RMI). Competitors note that proprietary interfaces require them to enter an order twice: once into Pacific's system to have the order processed, and once into their own systems so the competitor can bill and provide customer service.

Another concern (expressed by Sprint directly and also indirectly by other carriers) is the lack of up-front edit capability found in certain interfaces. In Pacific's retail systems customer representatives can only progress from one screen to the next when they have successfully completed the current order screen. This type of edit greatly reduces, and possibly eliminates, order rejection due to improper formatting or incomplete information.

According to Sprint, MCI and Nextlink/ICG, rejection notices and jeopardy notices are slow and inconsistent. These carriers note that, for orders involving UNEs, jeopardy notices [notices that Pacific will not meet the scheduled installation due date] are sent either by facsimile (fax) or by a phone call. This contrasts with resale where there is electronic notification for orders placed via RMI. Competitors assert that they were led to believe that EDI would solve the problem of not getting reject and jeopardy notices in a timely fashion. Pacific indicates that EDI does not have any greater capacity for rejection and jeopardy notification than does Pacific's other interfaces.

Competitors claim that Pacific has made it possible for only a limited number of order types to flow through. This limited flow-through rate has resulted in extensive manual processing of orders. This has raised competitors' concerns about Pacific's ability to handle increased volumes and its ability to accurately process orders. As noted above, the FCC shared these same concerns in previous 271 filings. Specifically, the resale order interfaces currently only flow-through migration orders. Changes, moves and new connects do not flow-through. Facilities-based competitors note that only unbundled loop migrations flow-through. New connects, changes, disconnects, suspend/restore, Directory Number Call Forwarding (DNCF), and DNCF to Local Number Portability (LNP) conversions reportedly do not flow-through and CLECs are unaware of when these orders will flow-through. MCI asserts that the effect of such limited flow-through capability is readily apparent in Pacific's own statistics: MCI notes that Pacific's witness Nipps has stated that only one to two percent of orders experience flow-through.

According to MCI, Nextlink/ICG and TCG, the limited flow-through problem is exacerbated by the limited number of UNE order types Pacific's interfaces can accept in electronic format. It appears that only simple orders involving unbundled loops can currently be accepted in an electronic format. All other orders for UNEs either must be transmitted by fax or called in.

TCG claims that LEX and EDI slow the ordering process by requiring unreasonable batch processing. They would prefer to see a real-time, machine-to-machine interface.

Pacific's Response

Pacific responds to the complaint that many of its ordering interfaces require dual entry by saying that those interfaces were designed for CLECs which are not interested in developing their own ordering platform. Pacific believes that CLECs interested in creating their own ordering systems would likely benefit from developing EDI capability. As part of the LEX ordering interface, CLECs can request daily flat file extracts that include all Local Service Request (LSR) data created by CLEC employees. This file could be used by the CLECs to populate their own ordering and customer care systems.

Pacific responds to Sprint's desire for more front-end edits by noting that CLECs have balked at the edits that currently do exist. This is demonstrated, Pacific states, by the numerous work-arounds Pacific's Local Service Center (LSC) has agreed to implement to accommodate CLEC system limitations. Moreover, Pacific indicates that CLEC ordering interfaces were designed to support a more limited product range than Pacific's legacy systems.

According to Pacific, reject notices for resale orders are generated in three ways. For orders received via RMI, rejects are generated by RMI (without service representative intervention) if the orders do not pass basic standards of completeness and accuracy. If RMI orders pass these basic standards, then a service representative will attempt to process the order. If the order fails again, Pacific encourages its service representatives to find obvious errors. If orders are received via fax, Pacific sends back a faxed reject notification through the LSC Tracking Database (LTD). The LTD system allows for a single reject code, but the service representative will place subsequent error codes in the remarks section of the reject notification. Pacific claims that CLECs were included in the development process for the reject code set to ensure that reject notifications are clearly understood. Pacific notes that, unfortunately, the possible combinations of CLEC errors is quite large and, therefore, it is difficult for Pacific to identify all CLEC-caused errors on an order.

Pacific responds to CLEC criticisms about low flow-through rates in two ways. First, Pacific notes that it has developed flow-through for those services that CLECs thought they would most likely order in the near term. Competitors initially indicated to Pacific that most resale orders would be for as-is migrations and most orders for UNEs would be for unbundled loops. More recently, competitors have expressed an interest in recombining UNEs to offer basic exchange service. This has resulted in a substantial decline in the percentage of orders that flow-through. Pacific has stated that it will make this capability available in July 1998 for requests submitted via LEX and EDI. Pacific asserts that it develops flow-through capability based on CLEC's demands and as time is available. Pacific contends that flow-through is determined by the CLEC's choice of order mix. Most recently, CLECs have withdrawn from the resale market, reducing the amount of migration orders Pacific receives. At the same time, CLECs with existing customer base must submit orders to satisfy customers' needs for record and feature changes. This explains the low volume of orders that flow-through.

Second, Pacific asserts that competitors have chosen to use the least efficient interface to submit orders and this has adversely affected flow-through. In Affiant Nipps opening and rebuttal affidavit, Pacific claims that flow-through occurs when two conditions are met: the order must be for basic exchange migration and the order must be error free. Nipps claims that the current low flow-through rate for resale orders reflects a shift from RMI to the fax process by CLECs because of limitations in their systems and the decision by some CLECs to exit the market. Pacific claims that 52% of the resale orders in April 1998 were sent by fax. Further, Pacific contends that it takes Pacific approximately 200% of the resources (average employee work time) to produce a fax order when compared to RMI. Pacific states that this high level of faxed orders adversely impacts processing efficiency.

Pacific decided not to develop flow-through for Interim Number Portability (INP) because it determined that flow-through capability in this area was not warranted due to low transaction volumes and limited benefits and efficiency gains to CLECs and Pacific. According to Pacific, migrations from INP to LNP will occur 30 days after LNP becomes available in a particular area, which will further reduce use of INP.

In response to TCG's concern about batch processing, Pacific explains that LEX is client server based and allows real-time access to the server. Every 15 minutes, orders are transferred to Pacific's internal systems. Further, Pacific asserts that batch processing is a common practice for EDI based interfaces.

Staff Analysis

In the collaborative process, staff would like Pacific to provide documentation on the current level of front-end edits that Starwriter and SORD contain. CLECs should come prepared to discuss which front-end edits they want and what types of system modifications would be necessary on their part to accommodate greater front-end edits. Staff agrees with Pacific that it serves little purpose to put in place greater front-end edits and then have CLECs ask for work arounds.

CLECs' concerns about the proprietary nature of many of Pacific's interfaces should be addressed in the workshops. Staff recommends that CLECs come with concrete suggestions of how Pacific could modify its systems to provide information that would allow for easier inclusion into the CLECs' own customer care and billing systems. Staff notes that it may be more productive to explore improving Pacific's current ordering interfaces rather than rejecting them as non-compliant with Section 271 because they are proprietary.

Staff expects a considerable portion of the discussions to focus on flow-through levels and on the availability of mechanized jeopardy/rejection notices. Staff agrees with the FCC's conclusion that a process that relies on significant manual intervention is generally inferior to an automated process. Documentation presented by the CLECs provides serious doubt about whether Pacific is able to process orders in a timely and accurate manner using a manual process. In the workshops parties should be ready to present a minimum list of services and/or elements that should flow-through. Staff encourages Pacific to present a detailed explanation of what system changes would be needed to accommodate greater flow-through. Pacific should be prepared to present in tabular format a complete list of all services and elements for which CLECs have placed orders in the last two years, which services Pacific can accept electronic orders for, and which of these services can be flowed-through. Staff concurs with MCI that an inability to accept electronic orders for UNE combinations is an impediment to CLECs using UNE combinations to enter the market. Staff thinks that any discussion of flow-through must include orders for UNEs and combinations of UNEs.

In examining ordering interfaces and their integration to pre-ordering, staff wishes to explore TCG's claims that LEX and EDI are slowed by the use of batch processing. Staff is concerned that the ordering interfaces provided to CLECs may not offer as timely a response as Pacific's own interfaces.

3. Maintenance and Repair

Background

Pacific provides competitors with three methods to report trouble with resold services or UNEs. First, competitors may contact the Local Operations Center (LOC) where an employee will complete a trouble ticket and contact the appropriate Pacific maintenance personnel. Second, a competitor may use the Pacific Bell Service Manager (PBSM) which is an electronic interface used by both Pacific customer service representatives and large business customers for trouble reporting. Third, Pacific is willing to construct a machine-to-machine interface known as EBI (Electronic Bonding Interface) that will allow CLECs to enter trouble reports for resold services, UNEs and interconnection trunks. These systems may also allow CLECs to perform some basic automated tests.

Competitors' Concerns

Overall, few concerns were expressed about Pacific's maintenance and repair OSS. Those concerns, however, center around three areas. First, some competitors expressed frustration with initial service orders being completed improperly or not at all. While service orders do not normally qualify as maintenance requests, CLECs report that Pacific often referred service orders to the LOC when the problem was initial service order completion. This is especially true for unbundled loop and DNCF cut-overs. Second, facilities-based competitors (Nextlink, TCG) were concerned that they did not have electronic access to trouble histories for UNEs, or receive real-time alarms and performance reports. Third, the one competitor that has undertaken development of an EBI interface, MCI, complained of Pacific's slowness in developing the interface as well as last minute design changes by Pacific. MCI claims that it is currently just testing the interface and cannot provide comment on its functionality.

Pacific's Response

Trouble history on any UNE product has been available electronically via Pacific's OSS since 1996. However, Pacific does not specify which interfaces provide the information. System alerts and notifications to users are available via PBSM. In response to criticisms by AT&T and MCI about implementing EBI, Pacific responds that either the carriers have chosen not to implement the interface because 1) it is more costly for Pacific if AT&T uses the manual option, or 2) delays in implementing EBI are related to CLEC back office system problems.

Staff Analysis

Staff's initial impression is that Pacific has made substantial progress in providing competitors with equivalent access to its maintenance and repair systems. Staff believes, however, that concerns expressed by the facilities-based competitors should be addressed during the collaborative process. One issue staff seeks to explore is the difference between PBSM functionality and that offered through EBI applications. Staff is concerned that small and large competitors have equivalent access to functions that allow CLECs to troubleshoot and enter trouble reports. Competitors' experience with developing EBI applications should be reviewed and parties should focus on improvements that can be drawn from these early experiences.

Staff agrees that repair orders must be completed properly and on a timely basis. If installation orders are not being completed properly, staff is interested in having those orders properly recorded as installation problems. The issue of installations being properly completed should be addressed when parties discuss the Local Operations Center (LOC). Parties should be prepared to discuss how installation reports/problems should be handled, e.g., should issues be referred to LOC, is the report format the same.

4. Billing

Background

In its application Pacific outlines a variety of methods through which CLECs may obtain billing information. When appropriate, Pacific provides three types of billing information for both resold services and UNEs: 1) daily usage, 2) monthly recurring, and 3) nonrecurring. The data is generally available in three formats: Network Data Mover (NDM) electronic files, CD-ROM and paper. On May 11, 1998, Pacific changed its billing of resold services from the system used to bill interexchange carriers (Carrier Access Billing System or CABS) to its billing system used for its own end-users (Customer Records and Information System or CRIS). Pacific claims that it made this system switch to allow for better order process via new interfaces and to provide more billing options.

Competitors' Concerns

CLECs seem to experience many different types of problems with bills generated by Pacific. However, it is unclear from both the competitors' comments and Pacific's replies whether the problems are generated by the billing mechanisms in place or by up-stream systems that feed the billing system. Sprint and Working Assets have both continued to receive bills from Pacific, even after they cancelled service for a particular end-user. Working Assets has been billed for business service yet it reports that it serves only residential customers. Genesis has had a protracted billing dispute in which discrepancies between order completion dates generated by Pacific's mechanized order interfaces conflict with dates in its billing system. MCI asserts that Pacific has not developed a system for billing originating and terminating access on unbundled switching elements that MCI has ordered.

Pacific's Response

In response to Working Assets' claims of double and incorrect billings, Pacific notes that it has adjusted Working Assets' bills where appropriate. Pacific indicates that it cannot respond to many of Working Assets claims about billing errors because the CLEC did not provide specific account and Billing Telephone Number (BTN) data. The CABS to CRIS conversion will improve overall billing, according to Pacific. Pacific admits that there was a CABS system error in April 1998, in which the system double billed charges. Pacific maintains that the problem has been corrected.

In responding to Sprint's claim of improper billings for canceled orders, Pacific explains that there have been instances where Sprint sent in an LSR and then subsequently canceled the request. Pacific states that when Sprint sent the original LSR via RMI and then sent a cancellation by fax, Pacific would reject the cancellation order. Pacific does not explain why the cancellation is rejected, but it appears that the mixed use of interfaces is not acceptable to Pacific and/or Pacific cannot accommodate such use.

Staff Analysis

Staff's analysis of other aspects of Pacific's OSS offering indicate that systems feeding the billing process have experienced errors. It is very likely that some concerns expressed by CLECs will be addressed by improvements in Pacific's OSS. The collaborative process should explore how billing disputes are handled. Staff is troubled by the Genesis scenario because it seems to signify that Pacific cannot rely upon any single internal system to generate bills. Staff would like Pacific to clearly explain how information generated from orders, including order completion time and order rejections/cancellations are used in generating bills for CLECs.

The collaborative process should be used to identify any services for which Pacific cannot generate billing data and develop solutions, including MCI's concerns about switched access records.

5. Change Management

Background

Pacific has revised many of its OSS interfaces over time for increased performance and features. Some of these changes require the CLECs to modify their own order entry systems, some changes require CLECs to modify how order forms are completed while other changes require no changes on the CLECs' part. For some interfaces, EDI being the prime example, joint planning and development is necessary. The process of upgrading the interfaces and the joint planning and design of machine-to-machine interfaces is commonly referred to as "change management."

Competitors' Concerns

Sprint, MCI and AT&T believe their experiences with the May 1997 upgrade of RMI demonstrate that Pacific has a one-sided development process for new interfaces. CLECs argue that Pacific's change management process does not allow for competitors' concerns to be addressed. Sprint provided a detailed account of its experience with the May 1997 upgrade. Initially Pacific informed Sprint that it would not need to modify its systems to accommodate the planned upgrade. When the specifications for the upgrade arrived on April 25, 1997, it was apparent to Sprint that it would need to modify its own OSS. A second revision of specifications appeared shortly thereafter. On May 15, 1997 Pacific released the third set of specifications and delayed implementation until July 31, 1997. The fourth and fifth set of changes were delivered June 16 and June 30, 1997. Pacific did not put the upgrade into place until August 1997. Competitors argue that this type of experience demonstrates Pacific's willingness to use its market power to make unilateral decisions that adversely affect CLECs' ability to access Pacific's OSS.

Nextlink believes that its most recent experience with Pacific concerning the release of LEX and Verigate demonstrates that Pacific has not improved its ability to work cooperatively with CLECs. Nextlink became aware of planned new releases in approximately April 1997. In November of the same year, Pacific provided a simple matrix that listed hardware and software requirements without any explanation or additional technical specifications. In March 1998, Pacific provided a revised matrix to Nextlink that did not provide any additional detail. Only after signing an amendment to its interconnection agreement in April 1998 did Nextlink receive substantially more documentation.

As stated above, these experiences have reportedly made CLECs concerned that Pacific is not willing to work in a cooperative manner to manage changes to its interfaces. The CLECs also suggest that this fluid environment makes it difficult, if not impossible, for CLECs to design and manage their retail operations.

AT&T, MCI and Sprint report similar experiences in their negotiations with Pacific about developing EDI. The three carriers found Pacific unwilling to provide technical specifications on agreed upon dates. Further, once the specifications were received, Pacific often changed them. As an example, Sprint claims that it was not until eight months after a mutually agreed upon date that Pacific provided documentation that Sprint needed to evaluate, develop and implement its portion of an EDI interface.

MCI details many similar experiences with changes to Pacific's RMI interface. As a response to the unilateral process Pacific used when it modified interfaces, MCI proposes a five step change management process: (1) Notification and Analysis; (2) Negotiation; (3) Design; (3) Construction; (4) Access Testing; and (5) Deployment. This proposed change management process would also include training and adequate documentation. (MCI, April 30, 1998, filing, p. 181)

Pacific's Response

In response to the CLECs' assertions that Pacific is unwilling to agree to reasonable change control procedures, Pacific responds that it has agreed to work with CLECS to develop change control processes. Pacific notes that a draft was presented on April 23, 1998, in the last workshop held in the OSS OII (Order Instituting Investigation).

Responding to concerns expressed by AT&T, MCI and Sprint about the slow exchange of information regarding EDI, Pacific explains that it had three weeks of daily meetings on EDI business rules in September 1997. Final EDI system requirements were distributed on December 1, 1997. Pacific does not respond to Sprint's or MCI's allegations.

Staff Analysis

As Pacific notes in its April 20 filing, change management is being addressed in the OSS OII. Staff appreciates that parties are diligently working in that proceeding and encourages further work. However, it is staff's opinion that the process Pacific has used in the past and is currently using to manage changes to its interfaces is not adequate. The examples provided by CLECs have impressed upon staff the need for better change management policies, and those polices must be in place prior to Pacific instituting any changes agreed upon in this collaborative process. Staff encourages parties to come prepared to design a change management process that will allow for a timely and efficient implementation of changes to Pacific's OSS. Parties should also address how this change management process will impact work in the OSS OII. As a basis for discussion, staff recommends focusing on the most recent developments on change management that have resulted from informal meetings between parties in the OSS OII.

6. Anti-Competitive Behavior

Background

As a part of its evaluation of Pacific's OSS, staff examined the issue of how Pacific's representatives use special knowledge gained as a result of the company's position as a wholesaler of telecommunication services and a supplier of UNEs. Pacific stated that its retail employees have no access to competitive information that CLECs provide to Pacific when they place orders or maintenance requests.

Competitors' Concerns

TRA and Working Assets present several examples of marketing practices by Pacific representatives that suggest Pacific may be improperly using CLEC information to solicit customers to switch back to Pacific. In the examples, TRA and Working Assets document marketing activity that cannot be used to definitively prove illegal use of Customer Proprietary Network Information (CPNI), but are very unlikely to occur without the use of such information. Working Assets describes scenarios in which Pacific contacts customers during the interval from when Working Assets submits a resale order for the customer and the time the order is processed.

Both Working Assets and Genesis provide examples of three-way calls involving Pacific, a CLEC, and a CLEC's customer in which Pacific representatives either disparage the CLEC's service or offered Pacific's service, often on a more timely basis, if the customer would return to Pacific.

Pacific's Response

In the affidavits' of Nipps, Viveros and Liberman, Pacific indicates that it has carefully trained its employees in the LSC and LOC regarding conduct with CLECs and CLECs' customers. Pacific asserts that it follows all relevant rules and regulations regarding the use of CPNI[28]. Its win-back campaigns are reportedly conducted without access to any knowledge the LSC may have about competitors' actions[29].

Staff Analysis

While the evidence that Working Assets and TRA present is somewhat ambiguous, staff is sufficiently persuaded that CPNI may be improperly being used by Pacific. Staff understands that Pacific will, as a matter of normal business, conduct marketing campaigns to persuade customers to either maintain Pacific's service or to switch back. These campaigns are not inappropriate. Staff's concerns are focused, however, on the fact that solicitations are occurring just after a customer has chosen to switch carriers. It seems improbable that these solicitations were mere coincidence. During the collaborative

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[28] In a June 15, 1998, letter to Andrew Isar and Michael Sawyer, Pacific asserts that its wholesale account teams are devoted exclusively to CLECs and are structured to be kept out of retail operations.
[29] Ibid., Pacific asserts that its win-back methods and practices are implemented to assure that it is complying with all applicable rules.

process, staff would like Pacific to present how it keeps CPNI of CLEC customers confidential and generally how Pacific develops its marketing campaigns for win-backs.

Competitors' concerns about inappropriate behavior on three-way calls involving Pacific representative also merit investigation in the collaborative meetings. Pacific's employees that deal with CLECs and CLECs' customers have conflicting incentives: On one hand, these employees are dedicated to helping CLECs solve their problems; while on the other hand, these same employees may feel that their employer is likely to prefer competition to not flourish. Staff is concerned that Pacific's senior management may not be structuring employee conduct rules and compensation packages to remove the conflicting incentives. As a starting point for discussions, Staff would like Pacific to present its rules or directives for employee conduct and its compensation packages.

7. Local Service Center (LSC)

Background

In developing its OSS interfaces for CLEC use during 1996, Pacific dedicated a group of employees to process CLEC orders for resold services, UNEs and interconnection trunks. These employees had the additional responsibility of answering CLEC questions regarding the use of interfaces and completion of orders. Pacific refers to this group as the Local Service Center (LSC). In 1997 Pacific divided the LSC into two separate groups. The RLSC handles questions and orders for resold services, and the FLSC primarily focuses on CLEC's UNE and interconnection related orders. Because these groups are one of the main points of contact for CLECs, both for order processing and for interface information, it is important to examine interactions between LSC staff and CLECs.

Competitors' Concerns

In their filings, competitors (specifically, AT&T, MCI, Sprint, TRA) provide insights into early experiences with Pacific's LSC. The CLECs believe that these early experiences clearly demonstrate that Pacific has struggled with the conflicting internal roles of its employees within the LSC and with providing consistent and timely answers to basic questions about ordering resold services. As discussed above, the LSC is also used to process all orders that require manual processing. CLECs' early experiences throughout much of 1996 and 1997 indicate that Pacific's LSC was unable to process order volumes submitted by CLECs in a timely manner.

Recent reported experiences of three CLECs (i.e. Sprint, Working Assets, and MediaOne) raise serious doubts about any LSC improvements claimed in Pacific's filing. On March 30, 1998, Sprint asserts that Pacific requested it use a new form to order number referral service. Since the change, Sprint has experienced a 20% reject rate. Likewise, in a four-day study period in April 1998, Sprint found 7 of 39 (or 18%) of the service orders for new installations of resale service required escalation at Pacific because there was no dial tone at the Network Interface Device on the day after the due date. Sprint indicates that it did not receive jeopardy notices on these orders.

Working Assets has made extensive use of the escalation process to achieve order completions. In August and September 1997, Working Assets began escalating about 50% of its orders. It reportedly took over one month for the LSC to respond, and two months for senior management within Pacific to respond to Working Assets' request for help.

A more recent experience of Working Assets suggests that this past experience may not have improved. In Attachment 8 of its filing, Working Assets presents data showing that more than 50% of the Firm Order Confirmations (FOCs) are not returned by Pacific within 24 hours. This is particularly significant because Working Assets submits all its orders manually, and therefore, all its orders must by processed by the LSC. The example is also important because it reveals that the aggregate numbers in Pacific's performance measures submitted with its filing may mask uneven performance within a measure. As an example, for the month of February 1998, Working Assets reports that 46% of its FOCs were returned within 24 hours and 68% within three days. In contrast, Pacific reports, with all carriers aggregated together, that 95% of the FOCs were returned within 24 hours.

Another recent example occurred when MediaOne initiated its operations in April 1998. MediaOne explains its process of obtaining help in completing its first orders using the CESAR interface. Based on MediaOne's account, there are many different avenues for help but little coordination exists across the different departments at the LSC. In addition, it appears that MediaOne's account manager was unaware of where to direct MediaOne's information request or of the underlying basic ordering process. As another example of its extensive problems in learning to use Pacific's OSS interfaces, MediaOne notes that four fields were added to the electronic order form since MediaOne attended training last fall. MediaOne asserts that is has not received any notice or explanation about the change.

Pacific's Response

In response to the allegation that end users were losing dial tone when migrating carriers or were receiving no dial tone on the due date for new resale installations, Pacific admits it did have problems early on. Pacific used special instructions on migration service orders to greatly reduce the problem. According to Pacific, allegations that it does not provide dial tone on new installations is overstated. Further, Pacific notes that when compared to retail, there are fewer incidents of installation problems.

Working Assets' escalation problems were handled by a Pacific-initiated meeting on October 30, 1997. At that meeting Working Assets provided an additional list of escalated orders; Pacific resolved those by November 4, 1997. Pacific asserts that Working Assets has not raised any new issues to the RLSC or to its account manager.

In response to MediaOne's concerns about poorly trained LSC staff, Pacific explains that it has an "extensive" training program for LSC representatives servicing both resale and facilities-based orders. Pacific asserts that the training of LSC representatives is similar to that provided retail representatives.

Staff Analysis

Competitors' comments indicate to staff that despite improvements in LSC employee training, staffing and management, Pacific has not demonstrated that the LSC can provide timely, accurate processing of competitors' orders and questions. From Pacific's and CLECs' comments, staff is unable to pinpoint exactly where the LSC needs improvement. Staff can identify general areas in which LSC performance needs improvement and suggests that parties focus discussion on areas needing improvement. Staff would like Pacific to present descriptions of the internal LSC organization including job duties, work flow analysis, and recent changes to improve performance. Staff believes that problems persist with help desk staffing and training; escalation procedures; manual processing of resale and UNE orders; issuance of jeopardy and rejection notices; and interaction between LSC personnel and account managers. Staff has concerns about conflicting incentives for employees of the LSC. Staff further requests that Pacific provide the rules, incentives and compensation established by senior management for LSC employees at all levels and for account managers.

8. OSS Appendix

Background

When Pacific offered its new OSS interfaces to competitors in March, April, and May of 1998, Pacific decided that competitors would need to amend their interconnection agreements to reflect access to these new OSS interfaces. The process by which Pacific negotiated these appendices, and the terms and conditions contained in them provide valuable insight into what Pacific considers to be nondiscriminatory access. It also provides insight into Pacific's treatment of competitors.

Competitors' Concerns

Next to flow-through, the OSS Appendix is probably the single most-discussed issue in competitors' filings. Almost all commenters believe that Pacific coerced signing of the OSS Appendix by requiring signature before Pacific would give access, training, or specifications on the new OSS interfaces. Nextlink stated that Pacific would not allow Nextlink staff to attend training on the new interfaces (scheduled two weeks later) until the company signed the Appendix.

Besides resenting being "held hostage" by the OSS Appendix, CLECs found many provisions of the OSS Appendix to be objectionable. AT&T, MCI, Nextlink/ICG and Brooks objected to the requirement that Customer Service Records (CSRs) only be accessed after a customer has agreed to switch carriers. The CLECs believe the FCC's rules on CPNI allow them to access a customer's CSR once the CLEC has obtained a letter of authorization allowing access to the CPNI. Nextlink believes that the FCC intended its CPNI rules to allow CLECs to access CSRs when in the negotiation process for a new customer.

Another controversial clause in the OSS Appendix allows Pacific to modify or discontinue use of any OSS interface upon 90 days' prior written notice. Competitors claim this clause introduces too much financial and operational uncertainty.

A third clause that CLECs object to states that the signatory agrees that Pacific provides nondiscriminatory access to its OSS interfaces. Several CLECs note that this issue is pending in this proceeding and felt that signing the OSS Appendix would be equivalent to signing away their litigation rights.

In its filing TRA describes how Pacific used its "market power" to force Omniplex to sign a resale service contract before Omniplex could use Verigate (Pacific's new pre-ordering interface). Originally Omniplex wanted to purchase wholesale services from Pacific's tariff. According to TRA, Pacific forced Omniplex to sign an interconnection agreement before it would allow Omniplex to use the new OSS interfaces. At the same time Pacific prevented Omniplex from using RMI, one of the mechanized interfaces for resale orders. TRA asserts that Omniplex was forced to agree to several clauses in the ICA which contained different terms and conditions from those that are applicable to CLECs who purchase service pursuant to Pacific's wholesale service tariff. Those terms include a requirement to pay for rebranding of resold operator and directory assistance services, a requirement to notify Pacific of disputed bills within 14 days of invoice date, and a prohibition against recourse to the Commission's complaint or other dispute resolution procedures for disputes involving less than $25,000.

Pacific's Response

Responding to competitors' concerns about unreasonable preconditions placed on access to the new interfaces, Pacific notes that the FCC has defined OSS as an unbundled network element. As result of being a UNE, both the ILEC and CLECs have a duty to negotiate in good faith on the terms and conditions of agreements. In Pacific's opinion, its proposals to amend existing interconnection agreements to include new OSS functionality are both reasonable and lawful.

Pacific responds to Omniplex's concerns about being forced to sign a resale agreement by saying that it is a requirement of Pacific's tariffs and its interconnection agreement that CLECs must sign a data exchange agreement prior to offering service. With respect to the additional requirement that carriers must dispute bills within 14 days, Pacific says that this is a correct interpretation of its interconnection agreement with Omniplex. Pacific claims that Ominplex misrepresents its inability to come before the Commission with a complaint. According to Pacific these terms were freely negotiated and Pacific cannot prevent a CLEC from initiating a complaint at the Commission.

Staff Analysis

Of all the concerns competitors raised about abusive use of market power, staff finds the OSS Appendix particularly troubling. Pacific's response on this issue -- that it is required to negotiate agreements for access to OSS and that the resulting agreements were reasonable and lawful -- brings into question what the guidelines used by Pacific's negotiators were. Staff would like Pacific to present these guidelines at the collaborative process, but staff realizes that these documents may be too sensitive to reveal to parties that are currently in negotiations. Staff therefore encourages Pacific and other parties to focus on developing appropriate balances to the purported one-sided bargaining power of Pacific.

As with the sections on the LSC and Anti-Competitive Behavior, staff is concerned about employees having the correct incentives to negotiate fairly. Moreover, it is not clear what the necessity or purpose is of having phrases characterizing Pacific's OSS interfaces in an agreement that is designed to govern terms and conditions of access. When CLECs are under extreme pressure to accept Pacific's terms in order to receive specifications or training on the new interfaces, it is apparent that, when compared to Pacific, CLECs are negotiating from a position of weakness.

9. Training

Background

In its order on the Ameritech/Michigan application, the FCC determined that, as part of its obligation to provide access to its OSS interfaces, a BOC is supposed to offer all necessary training, documentation and material to allow CLECs to effectively use the interfaces.[30]

Competitors' Concerns

Few competitors commented on specific shortcomings, but two sets of comments suggest that Pacific's training program may need improvement. Nextlink details an experience it had with Pacific regarding training. Pacific provided Nextlink with a schedule of training classes less than two weeks prior to when the training was to begin. Nextlink registered, reorganized scheduled work assignments, and paid for three employees to travel to the class only to discover that the training schedule Pacific provided contained incorrect information and the particular class on UNEs systems was not being offered and instead a resale class was being held. In addition, Nextlink notes that Pacific has a policy of requiring a minimum of five students per class and that Pacific charges for all five slots whether or not Nextlink has five students attending.

In an April 12, 1997, letter to Pacific, Working Assets outlines a training session by Pacific that seriously draws into doubt the quality of training being provided. In that session, the trainer was corrected by CLECs in attendance as well as by other Pacific attendees. It seems that a considerable amount of misinformation was provided by the trainer. In its April 30, 1998, filing, Working Assets asserts that from its recent experience, it appears that, as a result of the complexity of Pacific's OSS system as well as poor training, even managers at the LSC do not agree on how orders should be written. (London Affidavit, p. 4)

Pacific's Response

Pacific does not directly respond to competitors' concerns. It does describe generally that training is available and taught with the idea that CLEC attendees could return and train their own staff. Pacific mentions that student and instructor manuals are given out at the class in both paper and electronic format. In its original filing, Pacific includes an appendix detailing the different types of training CLECs have received. Pacific notes that training is available to any CLEC that has negotiated OSS in its agreement.

Staff Analysis

Staff commends Pacific for attempting to provide extensive training on the various interfaces and agrees with Pacific that it is reasonable to charge for training. However,

[30] Ameritech, ¶138.

staff notes that Pacific may have limitations in place that prevent small carriers from participating in training because of minimum class sizes.

Working Assets' comments raise further concern that the quality of the training may be inconsistent. Other carriers have raised concerns that help desk representatives have not received sufficient training to provide timely and accurate responses. This, combined with Working Assets experience, indicates to staff that Pacific needs to improve its training of employees that have direct contact with CLECs. Staff recommends that parties explore the different types of contact that occur between CLECs and Pacific's employees, what level of knowledge is required for each type of contact and how to develop an appropriate knowledge base to make those contacts meaningful. After these discussions, Pacific can draft a training program for staff's review and comments. This proposal is not intended to be the only solution available and staff will gladly entertain other proposals during the collaborative process.

10. Testing of Interfaces

Background

As mentioned earlier, the FCC expects Pacific to demonstrate the adequacy of its OSS interfaces through actual commercial usage. If such data is not available, Pacific may substitute the results of an independent third party analysis of Pacific's OSS interfaces. Prior to submitting its application, Pacific hired Coopers and Lybrand to undertake such an analysis. As AT&T notes in its filing, the FCC has emphasized that "third-party reviews should encompass the entire obligation of the incumbent LEC to provide nondiscriminatory access, and, where applicable, should consider the ability of actual competing carriers in the market to conduct business utilizing the incumbent's OSS access."[31] The results are contained in Pacific's draft application.

Competitors Concerns

AT&T, MCI and Sprint provide substantial critiques of Pacific's tests of its OSS systems. In their comments, competitors raise concerns that the Cooper and Lybrand study does not comport with FCC standards for useful third-party OSS evaluations. Competitors question whether the study was conducted with sufficient independence, the study does not properly analyze the design and construction of Pacific's OSS, the study failed to

[31] Ameritech Michigan Application, PP. 216

examine key OSS functions and the study did not accurately assess the capacity of Pacific's ordering interfaces. Competitors also note that the test was structured and conducted to determine how many of the transaction types that were supposed to flow-through its interfaces and systems would flow-through its interfaces and systems. Lastly, the commentors question results that substantiate Pacific's ability to adequately process manual orders at the LSC.

Pacific's Response

Pacific's response, prepared by Coopers and Lybrand, indicates that CLECs' comments were either erroneous or not appropriate. Pacific defends the study's objectivity and asserts that CLECs comments about scope were erroneous because Pacific did not need to study those areas to demonstrate its capacity. Other CLECs' comments raised tangential issues to the study that are not related to the methodology, according to Pacific. In sum, Pacific's comments attempt to refute all the concerns raised by CLECs.

Staff Analysis

It is clear to staff that parties would benefit by discussing an appropriate testing methodology that Pacific may use in lieu of actual commercial usage. Staff rejects the position of some CLECs that only data from actual commercial usage may be used to demonstrate the fitness of various OSS interfaces. Staff believes that Pacific and CLECs should be able to determine appropriate testing methodology for conducting independent tests of Pacific's OSS interfaces. Staff's opinion is that any testing methodology developed should include tests for all orders types that an interface is designed to accommodate.

B. COLLOCATION

Has Pacific provided collocation in accordance with the requirements of Section 251(c)(6), and pursuant to 271(c)(2)(B)(i) and 271(c)(2)(B)(ii)?

Pacific has not demonstrated that its current process for implementing physical and virtual collocation is in compliance with the Act.

FCC Rulings in Prior 271 Filings